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PATENT TRADEMARK OFFICE

International Application No. PCT/EP00/04694
Attorney Docket No. GIER3001/JEK

APPENDIX OF MARKED UP VERSION OF CLAIMS

1(Amended). A document of value [(1), such as] for example a paper of value, ID card or the like, [having] comprising at least one authenticity feature [(3)] in the form of a luminescent substance, the luminescent substance [(3)] having particles [consisting of] comprising a dye-laden molecular sieve whose structure forms an optical resonator in which at least one dye can be excited to show stimulated emission, the dye being incorporated in the cavities of the molecular sieve or located in or on the internal and external surfaces of the molecular sieve and wherein the transition to stimulated emission [being] is accompanied by a detectable change in the luminescent properties of the dye.

2(Amended). [A] The document of value [(1)] according to claim 1, [characterized in that] wherein the luminescent substance [(3) has] comprises different particles [consisting of] comprising different dye-laden molecular sieves.

3(Amended). [A] The document of value [(1)] according to claim [1 or] 2, [characterized in that] wherein the molecular [sieves with] sieve includes a channel structure, [e.g.] such as [from the] classes of aluminophosphates[, are used].

4(Amended). [A] The document of value [(1)] according to [at least one of] claims 1 to 3, characterized in that] claim 1, wherein the dye molecules [from the] comprise a class of laser dyes [are used].

5(Amended). [A] The document of value [(1)] according to [at least one of] claims 1 to 4; characterized in that] claim 1, wherein the spectral properties of the dye [are] have been adjusted by selection of the end groups.

6(Amended). [A] The document of value [(1)] according to [at least one of claims 1 to 5, characterized in that] claim 1, wherein the molecular sieve [has] includes different excitable dyes.

7(Amended). [A] The document of value [(1)] according to [at least one of claims 1 to 6, characterized in that] claim 1, wherein the document of value [(1)] has a further authenticity feature.

8(Amended). [A] The document of value [(1)] according to claim 7, [characterized in that] wherein the second authenticity feature [is] comprises a further luminescent material which preferably has the same body color as the luminescent substance.

9(Amended). [A] The document of value [(1)] according to [at least one of claims 1 to 8, characterized in that] claim 1, wherein the luminescent substance [(3)] is present in the volume of the document of value [(1)].

10(Amended). [A] The document of value [(1)] according to [at least one of claims 1 to 8, characterized in that] claim 1, wherein the luminescent substance [(3)] is admixed to a printing ink.

11(Amended). [A] The document of value [(1)] according to claim 10, [characterized in that] wherein the printing ink is applied in the form of a coding, [in particular] for example a bar code.

12(Amended). [A] The document of value [(1)] according to claim 10 [or 11], [characterized in that] wherein the printing ink with the luminescent substance is surrounded by a second printing ink with a further luminescent substance.

13(Amended). [A] The document of value [(1)] according to [at least one of claims 10 to 12, characterized in that] claim 10, wherein the printing ink is applied at least in certain areas to the document of value [(1)] or to a carrier connected with the document of value [(1)].

14(Amended). [A] The document of value [(1)] according to [at least; one of claims 1 to 8, characterized in that] claim 1, wherein the luminescent substance [(3)] is disposed in or on a security element [(2)] connected with the document of value.

15(Amended). A security element [(2) having] comprising at least one authenticity feature [(3)] in the form of a luminescent substance, the luminescent substance [(3)] having particles [consisting of] comprising a dye-laden molecular sieve whose structure forms an optical resonator in which at least one dye can be excited to show stimulated emission, the dye being incorporated in the cavities of the molecular sieve or located in or on the internal and external surfaces of the molecular sieve, and wherein the transition to stimulated emission [being] is accompanied by a detectable change in the luminescent properties of the dye.

16(Amended). [A] The security element [(2)] according to claim 15, [characterized in that] wherein the security element [(2) has] includes at least one carrier material in the volume or on the surface of which the luminescent substance [(3)] is disposed.

17(Amended). [A] The security element [(2)] according to claim 15 [or 16], [characterized in that] wherein the security element [(2)] has the form selected from the group consisting of a strip, band [or] and a label.

18(Amended). A method for marking a product comprising:

[products whereby the product is provided] providing a product with a luminescent substance having particles [consisting of] comprising a dye-laden molecular sieve whose structure forms an optical resonator in which at least one dye can be excited to show stimulated emission[.];

incorporating the dye [being incorporated] in the cavities of the molecular sieve or located in or on the internal and external surfaces of the molecular sieve, and

selecting the dye such that the transition to stimulated emission [being] is accompanied by a detectable change in the luminescent properties of the dye.

19(Amended). A method for checking a luminescent substance having particles [consisting of] comprising a dye-laden molecular sieve whose structure forms an optical resonator, comprising the steps:

[in which] selecting at least one dye that can be excited to show stimulated emission[.];

incorporating the dye [being incorporated] in the cavities of the molecular sieve or located in or on the internal and external surfaces of the molecular sieve[, and];

selecting the dye such that the transition to stimulated emission [being] is accompanied by a detectable change in the luminescent properties of the dye[.];
and

using the line narrowing and line shift and/or the threshold behavior and/or the shortening of the lifetime [being used] as an authenticity feature.

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20(Amended). [Use of] A process for marking products comprising using dye-
laden molecular sieves showing stimulated luminescence without an external
resonator for marking the products.

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